

Title (en)

Two-speed valve in-star motor.

Title (de)

Ventil für Sternmotor mit zwei Geschwindigkeiten.

Title (fr)

Soupape à deux vitesses pour moteur en étoile.

Publication

**EP 0276680 A2 19880803 (EN)**

Application

**EP 88100323 A 19880112**

Priority

US 788287 A 19870128

Abstract (en)

A rotary fluid pressure device is disclosed of the type including a gerotor gear set including a ring member (19) and a star member (23). Both manifold valving and commutator valving are accomplished at an interface between an end surface (42) of the star (23) and an end surface (41) of an endcap member (17). The endcap (17) defines three concentric pressure chambers (43), (51) and (47), and the star defines three concentric manifold zones (63), (67), and (65) which are in continuous communication with the pressure chambers (43), (51) and (47), respectively. The various manifold zones (63), (67), and (65) defined by the star communicate with fluid ports (69), (77) and (73), respectively which are also defined by the end surface (42) of the star (23). A valve spool (97) is selectively operable between a first condition providing communication between the manifold zones (63) and (67) to achieve a low-speed, high-torque (LSHT) mode of operation, and a second condition providing communication between the manifold zones (67) and (65) to achieve a high-speed, low-torque (HSLT) mode of operation.

IPC 1-7

**F03C 2/08**; **F04C 15/04**

IPC 8 full level

**F03C 2/08** (2006.01); **F03C 1/40** (2006.01); **F04C 2/10** (2006.01); **F04C 14/08** (2006.01)

CPC (source: EP)

**F04C 2/105** (2013.01); **F04C 14/08** (2013.01)

Cited by

US8821139B2; US11493018B2; US8684710B2; WO2012075625A1; WO2012018878A3

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

**EP 0276680 A2 19880803**; **EP 0276680 A3 19890510**; **EP 0276680 B1 19910109**; DE 3861468 D1 19910214; DK 40388 A 19880729; DK 40388 D0 19880127; JP H0751938 B2 19950605; JP S63195386 A 19880812

DOCDB simple family (application)

**EP 88100323 A 19880112**; DE 3861468 T 19880112; DK 40388 A 19880127; JP 1570688 A 19880126